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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/736,629	12/13/2000	Dean C. Storkan	17697-11	8021

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EXAMINER

JASTRZAB, KRISANNE MARIE

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/736,629

Applicant(s)

STORKAN ET AL.

Examiner

Krisanne Jastrzab (formerly Thornton)

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-26, 28-30 and 32-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 38 is/are allowed.
- 6) ☒ Claim(s) 18-26, 28-30, 32-37 and 39-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Claims 18-26, 28-30, 32-37 and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyers et al., U.S. patent No. 4,828,835 in view of Imai et al., U.S. patent No. 5,846,904.

Meyers et al., teach a storage stable, water emulsifiable formulation for preparation of an aqueous emulsion of an agricultural chemical. The formulation includes a soil biocide such as 1,3-dichloropropene (see column 3, lines 50-58) and an emulsifying agent including mixtures of anionic and non-ionic surfactants such as octylphenoxypolyethoxy and sulfonates (see column 3, line 65 through column 4, line 20, and column 6, lines 25-45). The formulation is combined with an aqueous medium and dispersed by spraying onto the soil in application rates within the range claimed in the instant claims (see column 5, lines 1-45).

Imai et al., teach the recognized equivalence of several soil biocides including 1,3, dichloropropene, chloropicrin and methylisothiocyanate (see column 1, lines 10-18 and column 9, lines 38-45) as well as the known and expected application of such biocides by drip irrigation followed by plastic tarping of the treated soil.

It would have been obvious to one of ordinary skill in the art to utilize any known soil sterilizer including those such as chloropicrin or methylisothiocyanate in the emulsified application set forth above because of their recognized efficacy and applicability in soil treatment, and with the conventionally recognized method above because it would provide optimal coverage by the biocide.

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Meyers et al., clearly teach the conventionality of the use of emulsifying agents with soil biocides and thus it would have been well within the purview of one of ordinary skill in the art to determine optimal surfactants and amounts thereof for the given application.

Response to Arguments

Applicant's arguments filed 10/1/2004 have been fully considered but they are not persuasive.

Applicant's arguments with respect to claims 18-26, 28-30, 34 and 39-41, have been considered but are moot in view of the new ground(s) of rejection. Applicant argued that Meyers fails to anticipate the claims above because Meyers to specifically disclose the soil biocides as now claimed after amendment. Imai clearly teaches the equivalence of those claimed biocides and that specifically recited in Meyers, thus Applicant's argument is moot in view of the rejection applied in response to the deletion of one of the biocides originally listed in the Markush group of the instant claims.

Applicant further argues that the system taught in Imai is not a drip irrigation system as claimed, but is a soil drenching system, however, the Examiner would hold that soil drenching systems are drip irrigation systems, and would point out that structure and function of Imai's system clearly meet all limitations defining a drip irrigation system in Applicant's instant claims. The Examiner would further support this with the art currently cited showing the state of the art in drip irrigation.

Allowable Subject Matter

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Claim 38 is allowed.

The following is a statement of reasons for the indication of allowable subject matter: the closest prior art of record fails to clearly teach or suggest the specific emulsifying formulation claimed with the specific combination of agents and recited amounts.

Terminal Disclaimer

The terminal disclaimer filed on 10/1/2004 disclaiming the terminal portion of any patent granted on this application, which would extend beyond the expiration date of 10/351,072 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

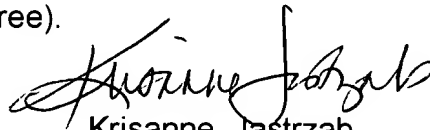
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The newly cited references not relied upon teach the conventional use of emulsifiers and those emulsifiers applicable in soil sterilizing emulsions, as well as the known and expected construction of drip irrigation systems, otherwise known as soil drenching systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krisanne Jastrzab whose telephone number is 571-272-1279. The examiner can normally be reached on Mon.-Wed. 6:30am-4:00pm and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Warden can be reached on 571-272-1281. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Krisanne Jastrzab", is positioned above the printed name.

Krisanne Jastrzab
Primary Examiner
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December 21, 2004